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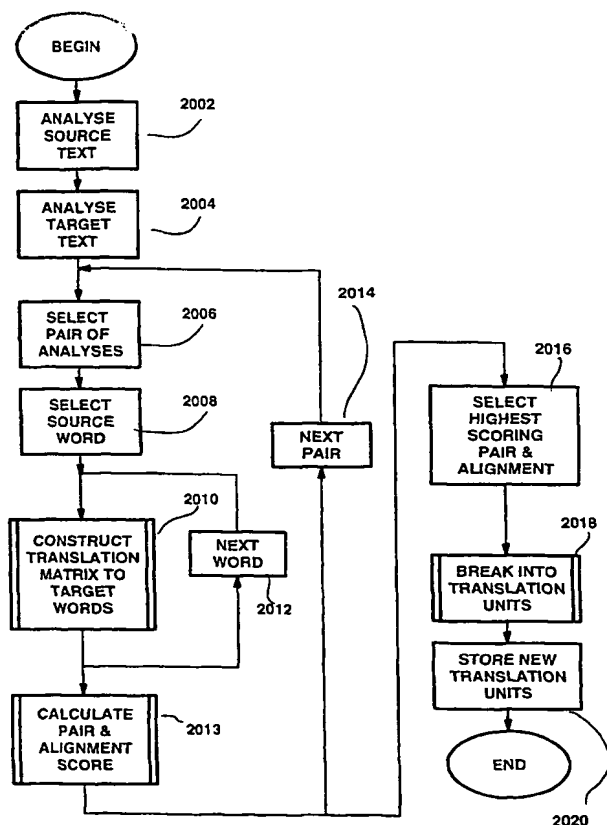
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[Continued on next page]

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(54) Title: **TRANSLATION**



(57) Abstract: A computer natural language translation system, comprising: means for inputting source language text; means for outputting target language text; transfer means for generating said target language text from said source language text using stored translation data generated from examples of source and corresponding target language texts, in which said stored translation data comprises a plurality of translation units each consisting of an aligned language unit (e.g. word). This invention generates the translation units for the translation system from a new source-target translation pair of examples, by generating source and target analyses and then finding the alignments by scoring and matching.

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ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/01390

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SATO: "MBT2: A METHOD FOR COMBINING FRAGMENTS OF EXAMPLES IN EXAMPLE-BASED TRANSLATION" ARTIFICIAL INTELLIGENCE, vol. 75, no. 1, 1995, pages 31-49, XP008001251 Amsterdam, NL ISSN: 0004-3702 cited in the application	13
A	the whole document	17
A	US 5 687 383 A (NAKAMAYA ET AL.) 11 November 1997 (1997-11-11) the whole document	1-12, 14, 15

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

15 September 2004

Date of mailing of the international search report

22/09/2004

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/01390

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12,14-17

Automatic generation of translation units for transfer-type translation system from analysis of aligned bilingual sentences

2. claims: 13,15

Transfer-type translation system using source & dependency data

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/GB 03/01390

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5687383	A	11-11-1997	JP	8101837 A		16-04-1996